REMARKS

Claims 5, 9 and 13 remain under consideration in this application. Claims 1-2, 4, 7-8, 11-12 and 15-20 stand withdrawn from further consideration as being directed to non-elected subject matter.

Claims 5, 9 and 13 have been rejected under 35 U.S.C. 112, 2nd paragraph, and Applicant has addressed each of the four issues raised by the Examiner under 35 U.S.C. 112, 2nd paragraph.

Claims 5, 9 and 13 have also been rejected under 35 U.S.C. 112, 1st paragraph, as failing to comply with the written description requirement. The Examiner contends that virtually all of the presently claimed features seem to have been derived from some unexplained or unclear combination of the originally filed disclosure.

In order to address these rejections, Applicants will provide the basis of support for each of the limitations of the claims in percentages below.

Chemical Deactivating Composition.

5% of chemical deactivating formulation and 95% carrier. Support for this combination can be found on page 18, Example 5, where the composition is described as including ICET powder 76-69A or 76-69AA from Table II on pages 16-17 which makes up less than 5% of the composition. ICET powder 76-69AA would be the chemical deactivating formulation at a level of 3.03% and if combined with Dabco at a level of 1-3 % would make the percentage of the chemical deactivating formulation (76-69AA plus Dabco) to be between 4.03% and 6.03%. The carrier polymer at 95% + 76-69AA at 3% + Dabco at 1-3% create the composition. 5% is in the range of 3.03% and 6.03%

25% of the chemical deactivating formulation and 75% carrier. Support for this combination can be found on page 20 where 1.0gm of the powder from Table II (containing the chemical deactivating components) + 0.1g of TiO2 + 0.4gm of citric acid for a total of 1.5gm is blended with 7.5gm of a carrier polymer. The Zn-hydroxypyridine-2-Thione is a biocide and belongs to the biocidal formulation. Thus the total weight of the chemical deactivating formulation is 1.5 gm. The plasticizer weight is adjustable, and 10 drops would be approximated to 0.5gm for this plasticizer based on its density). A total of 7.5 gms of carrier + 1.5 grams of the

chemical deactivation formulation additives makes the total weight of the composition 9 grams.

7.5 gm of the carrier polymer	= 83.3%
1.0 gm of powder from Table II	= 11.1%
0.1gm of TiO2	= 1.1%
0.4 gm of Citric acid	= 4.4%

If one decides keep the plasticizer at 0% as is the case in several examples, then one could add a maximum of 16.7% of the chemical deactivating formulation and the element in the claims has been amended to 16%.

0 –10% of titanium oxide: Support for this limitation can be found on pages 20 and 37 where the formulations are shown to include titanium oxide in this range. Several formulations also do not include titanium oxide.

0-23% of the plasticizer: This limitation is disclosed on page 21 where, it state that the plasticizer amount in Example 6 is 23.08%; however, there is support on page 18 that the formulations could be added to a carrier polymer without any plasticizer. Thus, the range of 0-23% for the plasticizer.

Chemical deactivating formulation:

(a) At least 25% of Metallic Silver-copper alloy and silver of nanosize (1-100nm). The "nanosize" is defined on page 16 as 1-100nm. In Example 4 on page 16, nanosize silver is listed as a chemical deactivating filler. Under Example 4, in Table II the nanosilver is 27.5% of the chemical deactivating formulations 76-69A and 76-69AA.

(b) At least 66% by weight of metal compounds selected from the group consisting of copper, molybdenum, silver, vanadium, manganese, zinc and iron.

All of these materials are identified on page 16 –17 as being chemical deactivating fillers. Under Example 4, Table II, the formulations 76-69A and 76-69AA where the components are as follows:

	69A	69AA
Silver phosphate (silver compound)	= 22.5%	-
CuO (nano)	= 25%	23.25%
Ferric oxide	= 12.5%	12.5%

Zinc Oxide	= 12.5%	12.5%
Silver citrate	= -	22.5%
Copper (I) oxide	= -	1.75%
	72.5%	72.5%

(c) 0-5 % of organic tertiary amine: Support for the limitation on page 37 where the use of 5% of organic tertiary amine is disclosed.

(d) 0-4% citric acid: Support can be found on page 20 where 0.4 grams of citric acid is incorporated into the formulation.

Antimicrobial Composition.

(a) 4-25% of an antimicrobial formulation: Support for the 4% portion of this limitation is found on page 18, in Example 5, where 3.03% of the ICET powder from Table II is described. Therefore the applicant claims the percentage of the antimicrobial formulation to be at least the 4% minimum.

Support for the upper end 25% limitation of the antimicrobial formulation in the composition and 75% carrier can be found on page 20, where the antimicrobial formulation is described as including 1.0gm of the powder from Table II (containing the antimicrobial (or biocidal) components as per the description of components on page 16 under Example 4), plus 0.1gm of TiO2 plus 0.4gm of citric acid for a total of 1.5gm of the antimicrobial formulation which is blended with 7.5gm of a carrier polymer and 0.5 gm of Zn-hydroxypyridine-2- thione (zinc pyrithione). The plasticizer weight in this example is .55gm as its density is 1.1gm/ml for a total weight of the formulation of 10.05gms.

7.5 gm of the carrier polymer	= 75%
1.0 gm of powder from Table II	= 10%
0.1gm of TiO2	= 1%
0.5gm of Zn pyrithione	= 5%
Citric acid	= 4%
Plasticizer	= 5.5%.

Depending on the formulation one chooses, for example, powder 76-69AA is predominantly chemical deactivating while 76-69BB is predominantly an antimicrobial.

(b) .2 - 5 % of Zinc pyrithione. This term is synonymously referred to as Zinc, 1-hydroxylpyridine-2-thione in the application, and it is described as a biocide on page 17 of the application and is indicated in the Table II as an ingredient that can be added to the antimicrobial formulation.

.2% zinc Pyrithione is supported by the disclosure on page 17. Support for 5% of zinc pyrithione can be found on page 20, Example 6 where the zinc pyrithione could be added to amount to 5%.

(c) **5 - 20.5 % of nanosize particles of silver**. This limitation is supported by Table II on page 17.

(d) 15 - 48% of metal compounds selected from group oxides, phosphates, pyrithiones, citrates and salicylates. The use of these materials is set forth on page 5, second and third paragraphs. The use of oxides is disclosed on page 16 in the discussion of Example 4.

Support for 15% of metal compounds (excluding the butyl paraben and nanosilver metal) can be found in Table II, where material 76-69BB is described as including 0.73% silver phosphate, 5% CuO, 1% ZnO and 8% silver citrate which equals 14.73%.

Support for 46% by weight of one or more metal compounds selected from oxides, phosphates, citrates and salicylates of zinc, silver, copper and bismuth is found in Table II, where the metal compounds in powder 76-114-01 include 17.4% silver phosphate plus 10.3% CuO plus 10.3% ZnO plus 10.3% silver citrate for a total of 48.3% and 46% is in that range.

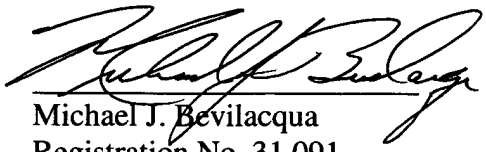
(e) 0 to 15% of sodium compounds selected from the group consisting of salicylate and triphosphate. Support for this limitation is provided in the last two columns of Table II on page 17 where both biocidal formulations include 10.3% sodium salicylate and 5.1% and 5.2% sodium triphosphate.

(f) 0-80% parabenzoic acid esters. This limitation is supported by Table II. The word Paraben is a common English name used for the parabenzoic acid esters. On page 183 of Antimicrobial Food Additives, Springer revised 2nd edition, 1997 by Erich Luck and Martin Jager "Paraben" is identified as a synonym of Esters of Parabenzoic acid.

Applicant believes that it has provided support for the invention claimed in claims 5, 9 and 13 as described above.

As only claims 5, 9 and 13 remain in the application, it should be noted that co-inventor Quoc T. Truong should not be listed as an inventor for these claims.

Respectfully submitted,



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Dated: April 24, 2006

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